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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/022,765	12/13/2001	William J. Gamble	83566AEK	2538

7590

07/28/2003

Paul A. Leipold  
Patent Legal Staff  
Eastman Kodak Company  
343 State Street  
Rochester, NY 14650-2201

EXAMINER

HON, SOW FUN

ART UNIT

PAPER NUMBER

1772

DATE MAILED: 07/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-5

**Office Action Summary**

Application No.

10/022,765

Applicant(s)

GAMBLE ET AL.

Examiner

Sow-Fun Hon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION:

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 May 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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### **DETAILED ACTION**

#### ***Rejections Withdrawn***

1. The 35 U.S.C. 112, 2<sup>nd</sup> paragraph rejections in Paper # 2 (mailed 03/20/03) are withdrawn due to Applicant's amendment and clarification in Paper # 4 (filed 05/09/03).

#### ***Rejections Repeated***

2. The 35 U.S.C. 103(a) rejection of claims 1-24, 28-29 over Honda et al. in view of Sand et al. has been repeated for the same reasons previously of record in Paper # 2 (mailed 03/20/03).
3. The 35 U.S.C. 103(a) rejection of claims 25-27 over Honda et al. in view of Sand et al. and Perregeaux has been repeated for the same reasons previously of record in Paper # 2 (mailed 03/20/03).

#### ***Response to Arguments***

4. Applicant's arguments filed 05/09/03 have been fully considered but they are not persuasive.
5. Applicant argues that Honda et al. does not suggest component (b) and Sand does not suggest component (a), and that component (a) in Honda is suggested as a plasticizer not as an antioxidant as allegedly described in the rejection.

Applicant is respectfully reminded that the rejection clearly states that Honda et al. teaches the triphenyl phosphate (component (a)) as a plasticizer (Paper # 3, paragraph 4 (mailed 03/20/03)).

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6. Applicant argues that the object of Honda et al. is to prepare a TAC dope in a non-chlorinated solvent and to obtain a film with low turbidity and haze since there appears to be no disclosure about controlling water vapor transmission as for liquid crystal applications, or about retarding flammability or oxidation. Applicant also argues that water vapor transmission is not a property of concern at high temperatures where flammability is a concern and that Honda et al. does not teach phosphates as antioxidants.

Applicant is respectfully reminded that Honda et al. does teach that the plasticizer is for giving water resistivity, and that an antioxidant is for giving resistivity to heat and water vapor (moisture) for liquid crystal image displaying applications ('358, column 11, lines 30-65). Since Honda et al. teaches the need for heat and water vapor resistivity in liquid crystal image displaying applications, the presence of harmful water vapor in higher than ambient temperature conditions is suggested. Liquid crystal displays have electrical circuits which are fire hazards thus necessitating flame retardancy, and since flame retardancy involves resistance to oxidative degradation, antioxidation is a desirable property.

Furthermore, a chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). See MPEP 2112.01. In the instant case, in the absence of a showing to the contrary, since the teaching that triphenyl phosphate gives water resistivity to the triacetyl cellulose film implies hydrophobicity, it is the examiner's position that the triphenyl phosphate also functions to control water vapor transmission in the film due to the hydrophobicity.

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7. Applicant argues that Sand et al. is broadly directed to cellulose films of the di or triacetate variety, suggests including an arylene-bis(diaryl phosphate) compound which is a flame retardant/formula stabilizing/dimensionally stabilizing plasticizer for materials produced from cellulose esters, and a shotgun disclosure of additives familiar to those familiar with the art so that one would have to pick the triphenyl phosphate from the unlimited list of known additives.

Applicant is respectfully reminded that there are only 8 in the list of useful plasticizers ('450, column 6, lines 60-70), which is far from unlimited.

8. Applicant argues that Sand is directed to the effects of high temperatures which are related to flammability, volatility and dimensional stability, and that one would not turn to high temperature properties in order to resolve a water vapor transmission problem.

Applicant is again respectfully reminded that liquid crystal displays have electrical circuits which are fire hazards thus necessitating flame retardancy, and since flame retardancy involves resistance to oxidative degradation, antioxidation is a desirable property. Sand et al. is the secondary reference used to compensate for the failure of the primary reference Honda et al. to teach the addition of an aromatic polyol-bridged polyphosphate compound to the triphenyl phosphate plasticizer. As discussed above, although Honda et al. teaches a 1 % amount of antioxidant which is not a phosphate, Honda et al. does teach that a combination of plasticizers may be used ('358, column 11, lines 40-65). Since Honda et al. teaches the need for heat and moisture resistivity in liquid crystal applications with the addition of an antioxidant, the motivation is present to combine 1 % amount of the aromatic polyol-bridged polyphosphate compound et al. with the 5% to 30 % triphenyl phosphate ester of Honda et al. in order to take

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advantage of the antioxidative properties of the less volatile aromatic polyol-bridged polyphosphate compound.

***Conclusion***

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication should be directed to Sow-Fun Hon whose telephone number is (703)308-3265. The examiner can normally be reached Monday to Friday from 9:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on (703)308-4251. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9311.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

871  
Sow-Fun Hon  
07/17/03

*Sandra M. Nolan*  
SANDRA M. NOLAN  
PATENT EXAMINER  
T.C. 1700